ATTACHMENT 5

STATE OF ALASKA

THE REGULATORY COMMISSION OF ALASKA

Before Commissioners:	Mark K. Johnson, Chair Kate Giard Dave Harbour James S. Strandberg G. Nanette Thompson
In the Matter of the Petition by GCI COMMUNICATIONS CORP. d/b/a GENERAL COMMUNICATION, INC. and GCI for Arbitration Under Section 252 of the Telecommunications Act of 1996 with the MUNICIPALITY OFANCHORAGE d/b/a ATU TELECOMMUNICATIONS a/k/a ATU TELECOMMUNICATIONS for the Purpose of Instituting Local Competition.	U-96-89

PREFILED DIRECT TESTIMONY
OF
THOMAS H. WEISS

ON BEHALF OF
GENERAL COMMUNICATION, INC. (GCI)

August 29, 2003

I. INTRODUCTION AND QUALIFICATIONS

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Thomas H. Weiss. My business address is 405 Crossway Lane, Holly Springs, North Carolina, 27540. I am the President of Weiss Consulting, Inc.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A. I received a Bachelor of Science Degree in Electrical Engineering from North Carolina State University at Raleigh in January 1970. I earned a Master of Science degree in Business Management from Duke University Graduate School of Business Administration (now the Fuqua School of Business) in 1973.

I am a Registered Professional engineer licensed to practice in Maryland and Missouri. I am also a member of the National Society of Professional Engineers and the North Carolina Society of Professional Engineers, both in the Private Practice Divisions. I also hold memberships in three specialist branches of the Institute of Electrical and Electronic Engineers: the Communications Society, the Computer Society and the Network Society.

I have been an active participant in academics within various university programs. I am the author of *Public Utility Plant Investment Decisions in the Face of Advancing Technology and Regulatory Policy Reform*, Proceedings of the 27th Annual Regulatory Conference, Iowa State University, Ames (1988). I have been a speaker and a panel member at the 1984 Public Utilities

Conference, University of Georgia College of Business and at the 1988 Iowa State University Regulatory Conference. I also have served as a member of the faculty at the 1989 United States Telephone Association Advanced Management Workshop, which was sponsored by the University of Kansas at Lawrence.

Prior to founding Weiss Consulting, Inc. in 1994 – a telecommunications consulting firm that provides technical, management and economic consulting services to federal and state governments, as well as to private businesses – I practiced as a telecommunications engineer with a national local exchange carrier, and I have also worked for private consulting firms. From January 1970 through June 1978 I was an engineer and financial manager with General Telephone Company of the Southeast, a local exchange operating company owned by GTE Corporation (now Verizon Communications, Inc.). From 1978 to 1986, I was employed as a Senior Consultant with the public utilities consulting firm, Hess & Lim, Inc. And from 1986-1994, I was Vice President of Baker G. Clay & Associates, Inc., another public utility consulting firm.

In 1997, I was appointed Vice President – Operations Research for Vermont Telephone Company, Inc. where, in a general management capacity over a three-year period, I was charged with responsibility to improve the company's operations efficiency, its relations with regulators in the State of Vermont, and to assist the CEO in recruiting and hiring a senior executive to be responsible for customer service and regulatory relations. In 2001, I was engaged as a consultant to the U.S. Agency for International Development where I worked with telecommunications companies and the Telecommunications Regulators

Association of Southern Africa ("TRASA") to develop regulatory accounting and cost allocation systems for implementation in TRASA's fourteen member states.

More generally, I am a Registered Professional Engineer with over thirty-two years of experience in the telecommunications industry. My consulting practice has focused on technology, management and regulatory issues. I have extensive experience analyzing the prices charged for services that are rendered by domestic telecommunications utilities in both wholesale and retail markets.

I have presented expert testimony on communications matters both in federal and state courts, and I have testified in over one hundred and forty proceedings before public utility regulators in twenty-four states and the District of Columbia. I also have testified on economic and regulatory issues before the Federal Energy Regulatory Commission

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY AT THIS TIME?

A. General Communication, Inc. ("GCI") has asked me to discuss the ratemaking principles applicable to determining Incumbent Local exchange Carriers' ("ILECs," e.g., ACS) non-recurring costs of providing local exchange network interconnection or Unbundled Network Elements ("UNEs") to Competitive Local Exchange Carriers ("CLECs," e.g., GCI), and to develop and recommend a series of Non-Recurring Charges ("NRCs") that should apply in the competitive relationship between ACS and GCI.

My testimony also includes my recommendations for the development of charges to be assessed by ACS to GCI for collocation of GCI equipment and facilities on ACS premises.

Finally, GCI has asked me to recommend recurring monthly rates for certain network elements, known as "orphan elements" -- that is, elements for which monthly recurring rates are not developed out of the local exchange loop and switching models recommended by GCI for use in setting UNE prices in this docket. The "orphan elements" include DS1 UNE, DS1 Multiplex "(MUX"), DS3 MUX, DS3 UNE, Digital Access Cross-connect System ("DACS"), Dark Fiber and Conduit. I understand that GCI and ACS have reached agreement on the amount of incremental capital investment that would constitute the basis for developing monthly recurring rates for the following "orphan elements": DS1 UNE, DS1 MUX, DS3 MUX and DACS. Based on that agreement, I develop and recommend monthly recurring rates that should apply to each of these orphan elements. Finally, I develop the incremental capital investments and monthly recurring rates for the DS3 UNE, Dark Fiber, and Conduit elements.

Q. WHAT ARE NONRECURRING COSTS?

A. Nonrecurring costs are one-time expenses incurred by ILECs for specific work activities that are required to process orders for products and services and to install and configure network elements for the benefit of CLECs. Nonrecurring costs are typically labor-related costs for work activities that are required to initiate interconnection or provide a network element. A non-recurring cost is a cost that is incurred only once, and a non-recurring charge is a charge assessed only once specifically to recover the associated costs.

Q. DO NONRECURRING CHARGES CONSTITUTE A SIGNIFICANT COMPONENT OF CLEC's COSTS TO COMPETE WITH THE ILECs?

A. Yes. To CLECs, NRCs are revenues paid to ILECs before any service is rendered to the CLEC and, unless they reflect true economic costs, NRCs can constitute a significant means by which ILECs can limit CLECs' access to markets for local exchange access; that is, NRCs represent a potential barrier to CLECs' entry into ILECs' markets. Therefore, as a means to limit CLECs' access to their markets, ILECs have an economic incentive to inflate NRCs by overstating, through various means, the associated costs.

Q. HOW CAN ANY BARRIER TO CLEC LOCAL EXCHANGE MARKET ENTRY EXIST WHEN THE CLEC CAN SIMPLY PASS ITS COSTS ON TO ITS CUSTOMERS?

A. In its efforts to compete with ILECs, the CLECs have no inherent market power;[1] they are constrained to compete with the ILECs by charging no more to end users than the ILEC is charging for the same end-user services. The CLEC cannot attract new end-user customers if the customers perceive that the total price for service from the CLEC, including recurring and non-recurring charges, exceeds the total price that is charged by the ILEC for the same or similar services. If the ILECs' charges to the CLECs exceed the relevant ILEC costs, either or both recurring and non-recurring, then as a practical matter the CLECs simply cannot sell their services to end-users in competition with the ILEC.

---

[1] Market power is the ability of a single seller (or a group of sellers) to influence the price of a product or service in which it trades.

Q. BY WHAT MEANS CAN AN INCUMBENT OVERSTATE NONRECURRING COSTS?

A. An incumbent can, for example, establish and maintain obsolete manual practices for receiving and processing orders initiated by new entrants. This approach not only raises costs to both the incumbent and new entrant, but it also increases the probability of introducing errors into the ordering and provisioning processes, tending to over-estimate the amount of time and thereby increase the indicated cost for the ILEC to complete an order. Another example is that costs already included in recurring rates can be incorporated into the cost basis for nonrecurring charges. Also, disconnection costs, some of which may never be incurred, can be included in the development of nonrecurring costs that are imposed when service is initiated.

To ensure that the cost estimates which form the basis of nonrecurring charges are calculated correctly, it is important to focus only on the costs of the actual transactions of pre-ordering, ordering and provisioning. Even then, the costs must be limited to those costs directly caused by the efficient processing of the service transactions calculated on a forward-looking basis assuming the use of mechanized interfaces between ILEC and CLECs, and deployment in the ILEC's network of technologically current plant and equipment.

Q. HOW SHOULD REGULATORS APPROACH THEIR REVIEW OF ILEC PROPOSALS FOR RECOVERY OF NON-RECURRING COSTS?

A. Since NRCs constitute potential barriers to competitive local exchange market entry by CLECs, regulators should carefully question the basis for any nonrecurring costs claimed by ILECs so as to ensure that ILECs' NRC proposals accurately capture the true nonrecurring costs, not recovered elsewhere, of installing the facilities and configuring the network for use by CLECs.

Q. IN THE CONTEXT OF THE CLEC/ILEC RELATIONSHIPS AT ISSUE IN THE INSTANT DOCKET, WHAT TYPES OF NONRECURRING COSTS DOES THE ILEC INCUR IN ORDER TO ADVANCE THE DEVELOPMENT OF COMPETITION?

A. The nonrecurring costs at issue here can be broken down into two fundamental categories: (1) competitive onset costs, and (2) transaction costs.

Q. WHAT ARE COMPETITIVE ONSET COSTS"?

A. Competitive onset costs are costs that an ILEC incurs: (1) to enable its network to be used efficiently by multiple carriers; and (2) to improve service to its own customers as it seeks to compete effectively in the changing market. It is important to note here that competitive onset costs are not caused by the entry of competing carriers into the local exchange market. Rather, competitive onset costs are incurred by ILECs in order to bring the benefits of competition to all end-users whether they are served by the CLEC or by the ILEC itself. The existence and magnitude of competitive onset costs exclude the savings that ILECs enjoy from becoming more efficient; they are not attributable to any particular competing carrier's or group of competing carriers' requests for services, UNEs, or facilities. Competitive onset costs find their genesis in the mandate by the Telecommunications Act of 1996[2] ("TA96" or "the Act") that local

---

[2] Pub. L. No. 104-104, § 101(a), 110 Stat. 56 (1996).

exchange markets should be open to competition and that new entrants should have nondiscriminatory access to the incumbent's network.

For purposes of this proceeding, GCI witness Mr. Craig Engel describes and explains a GCI-proposed process to develop an efficient Operations Support System ("OSS") ordering interface between Alaska CLECs and ACS. The results of that process will serve as the basis for the development of the competitive onset category of costs.

Q. WHAT ARE TRANSACTION COSTS?

A. Transaction costs are the nonrecurring costs that an efficient ILEC incurs in response to individual requests for services or facilities by CLECs.

Q. GIVEN THE REQUIREMENTS OF TA96 AND THE FCC'S REQUIREMENTS FOR FORWARD-LOOKING NON-DISCRIMINATORY ORDERING INTERFACES, WOULD ILEC's NONRECURRING TRANSACTION COSTS BE OF SIGNIFICANT MAGNITUDE?

A. No. Most of these costs tend to be costs for the labor required to place plant, to configure plant, or to process an order. In the case of order processing labor, given the requirements of TA96 and the FCC's requirements for non-discriminatory access, transaction costs to process orders are not significant. Much of the work required for completing a CLEC request for interconnection or UNEs can be accomplished electronically by the requesting CLEC's own personnel and thus minimal, if any, ILEC costs are incurred. Also, since it is reasonable to assume that competitive market pressures would force ILECs to deploy efficient OSS capacity to serve its own customers, the existence of a highly efficient, fully-automated OSS should be assumed in the determination of nonrecurring transactions costs.

Q. DOES THE DEVELOPMENT OF REASONABLE CHARGES TO RECOVER ILECs' VALID NONRECURRING COSTS REPRESENT AN ESSENTIAL REQUIREMENT FOR THE DEVELOPMENT OF A VIABLE COMPETITIVE ENVIRONMENT?

A. Yes. Consistent with the requirements of TA96 and the FCC rules developed pursuant to the Act, it is essential that regulators require ILECs to set reasonable charges for any forward-looking nonrecurring costs related to UNEs that a CLEC might purchase. Inaccurately excessive nonrecurring costs will stifle both the entry to and the economically efficient expansion of the competitive market for local exchange service. The result is that end-users fail to enjoy the economic benefits that were envisioned by Congress when it passed TA96.

Q. WHAT PRINCIPLES SHOULD GUIDE THE PROPER DEVELOPMENT OF NONRECURRING COSTS IN THIS PROCEEDING?

A. At the outset, it should be recognized generally that when suppliers in competitive markets incur nonrecurring start-up costs to obtain new customers, these costs are routinely recovered on a recurring basis because imposing start-up costs on potential customers on an up-front basis discourages the customers from using a service and encourages them to obtain service from a competitor that is willing to waive these costs, in whole or in part, and/or recover them on a recurring basis.

The following seven basic principles should guide regulators' determinations of ILECs' nonrecurring costs and the NRCs developed from them:

(1) NRCs must be based on TELRIC principles described in the FCCs rules.[3] In other words, they should reflect the expenditures that would be incurred by an efficient competitor using the most efficient telecommunications technology that is currently available -- not embedded costs. Any estimates of the time it takes to handle service orders must also be based on current least cost technology.

(2) To the limited extent that manual intervention is required in the process of ordering and establishing services, the time and cost associated with such manual tasks should, to the maximum extent possible, reflect the economies of scale that can be achieved in performing such tasks.

(3) NRCs constitute potential barriers to entry and can stifle the expansion of existing competition. Therefore, the burden should be placed on the ILEC to show that costs proposed to be recovered in NRCs should not be capitalized and recovered therefore in recurring rates, and that no other future customer could benefit from the nonrecurring activity.

(4) Double recovery of costs should be avoided. The simplest way to avoid potential over-recovery is to eliminate any explicit nonrecurring costs and to recover in recurring rates whatever nonrecurring costs that an efficient ILEC would incur.

---

[3] 47 C.F.R. Part 51.

(5) Nonrecurring charges imposed on UNE wholesale services should never exceed comparable nonrecurring costs that the ILEC charges to its own retail customers.

(6) To the maximum extent possible, nonrecurring charges should be unbundled, so that only those CLECs who actually cause nonrecurring activities are assessed a related nonrecurring charge. This is consistent with the FCC's admonition to take cost causation into account to the maximum extent possible when rates and charges are developed in connection with the transition to the competitive market.

(7) ILECs should charge CLECs no more to initiate service than the amount of NRC that the ILEC charges to its own end-user customers to in initiate bundled retail service, minus any costs that the ILEC incurs to disconnect service. CLECs should be charged to disconnect UNEs only when service is disconnected.

Q. WHAT IS REQUIRED TO DEVELOP NONRECURRING COSTS BASED ON A FORWARD-LOOKING, LONG RUN ECONOMIC COST CONSTRUCT – ITEM NO. 1 IN YOUR LIST OF GUIDING PRINCIPLES?

A. A forward-looking, long run economic cost construct for NRCs develops costs based on the deployment of an efficient forward-looking service support system, forward looking technologies and efficient labor. Using service support systems efficiently allows the incumbent to process a very high percentage of valid orders and provide the necessary facilities with limited need for manual intervention. This approach is less costly than the manual handling of a high percentage of orders that would otherwise “fall out” of the mechanized process (manual processing requires more ordering and provisioning labor and is therefore inconsistent with forward-looking long run economic cost). Additionally, for consistency, the cost development should rely on the same network as that which is reflected in recurring cost studies.

Q. BASED ON THE PRINCIPLES THAT YOU HAVE ENUMERATED, HAVE YOU PREPARED AN ANALYSIS OF THE NONRECURRING TRANSACTION COSTS THAT ACS WOULD INCUR TO PROVIDE INTERCONNECTION AND UNES TO CLECS?

A. Yes, I have. My analysis of ACS nonrecurring costs is grounded in the Non-Recurring Cost Model ("NRCM" or "Model") that was designed in 1998, in compliance with TA96 and the FCC's rules developed pursuant to TA96, by MCI in collaboration with AT&T to give regulators an objective analysis of ILECs' nonrecurring costs to provide CLECs with interconnection and UNEs. The NRCM accurately reflects all of the principles that I described earlier. It is important to note that the NRCM has been adopted by and/or has formed the basis for NRCs approved by regulators in Arizona, Minnesota and Vermont, and where it has not been adopted in its entireity, the analysis that underpins the NRCM has properly influenced the nonrecurring charges adopted in other states, such as New York and Rhode Island. More importantly, however, the NRCM has been accepted by this Commission when it set the NRCs in the Fairbanks and Juneau arbitrations.[4]

Q. PLEASE BRIEFLY EXPLAIN THE OPERATION OF THE NRCM.

---

4 RCA Dockets U-99-141, 142 and 143.

A. The NRCM develops one time (non-recurring) cost estimates for the tasks and activities that may be performed by an ILEC when a CLEC requests wholesale services, interconnection, and/or unbundled network elements. Utilizing a forward-looking cost study methodology, the NRCM develops a "bottom-up"[5] estimate of non-recurring costs. The NRC Model reflects the individual tasks and activities that may be required for an ILEC to respond to a CLEC request. To the extent feasible, the cost of each component is separately determined.

The majority of non-recurring element types involve activities associated with the pre-ordering, ordering and /or provisioning processes.

Pre-ordering: The process by which a CLEC interfaces with customers to determine customer needs. A CLEC and ILEC exchange necessary information to initiate orders. This information, such as customer premise address, phone number availability, feature availability and service availability is made accessible to CLECs electronically so they can accurately respond to customers when taking service and feature orders.

Ordering: The process by which a CLEC electronically submits a Local Service Request (LSR) to an ILEC via an electronic gateway. The ILEC responds electronically with a positive confirmation of order acceptance.

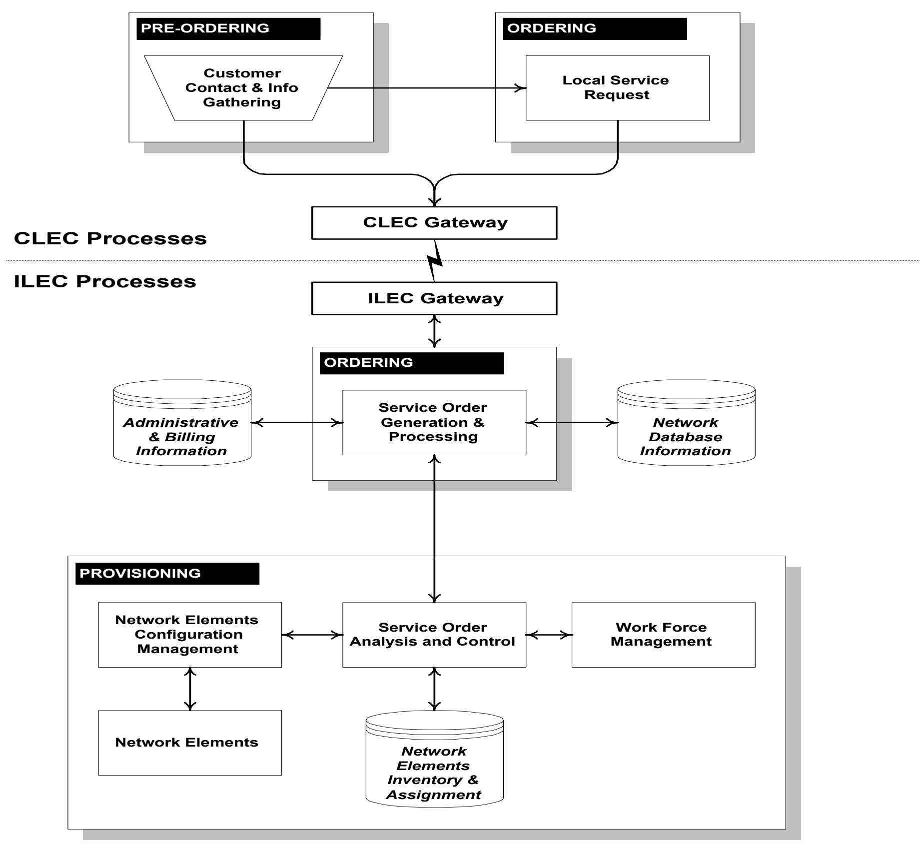
---

[5] "Bottom-up" refers to the fact that costs are developed by identifying fundamental elements of cost (e.g., labor time) and combining them with unit costs of the elements (e.g., loaded labor rates) to produce estimates of nonrecurring costs.

Provisioning: The process by which an ILEC, after receipt of an LSR order, performs the necessary functions to provide the service, interconnection, or Unbundled Network Elements (UNE) requested by a CLEC.

The ILEC and CLEC processes that are modeled by the NRCM are shown graphically at Figure No. 1 below.

Figure No. 1
NRCM Processes

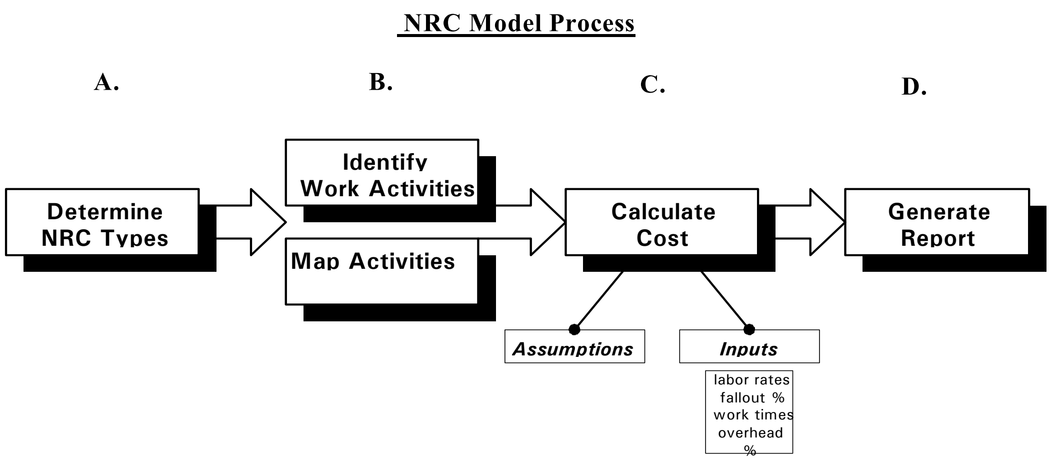


In summary, the NRCM provides a detailed step-by-step understanding of the systems and functions and activities that are performed by an ILEC in the ordering and provisioning of wholesale services and network elements to CLECs.

Q. PLEASE DESCRIBE THE PROCESS BY WHICH THE NRCM DETERMINES NONRECURRING COSTS THAT ILECs INCUR TO PROVIDE WHOLESALE SERVICES AND NETWORK ELEMENTS FOR CLECs.

A. The process used by the Model to compute the nonrecurring costs that ILECs incur to provide wholesale services and UNEs for CLECs is depicted graphically in Figure No. 2, below:

Figure No. 2



As shown under "A" in Figure No. 2, the initial step in the process is to identify the various forms of wholesale services and UNEs for which ILECs incur costs and for which NRCs are required. The Model computes costs for all three (3) individual forms of connectivity options required by TA96: (1) Total Service Resale (TSR"), where the ILEC acts as a wholesaler of local telephone service that the CLECs resell to end-users; (2) Unbundled Network Elements ("UNEs") that the CLECs purchase from the ILEC, either alone or in combination with other

UNEs, to provide a variety of services to end-users; and (3) UNE Platforms (UNE-P"), the combination of loop, switching and transport UNEs that CLECs use to provide loop service to end-users. The NRCM is able to model ILECs' nonrecurring costs for a total of 49 individual NRCs.

As shown under "B" in Figure No. 2, the next step in the process is to define the various work activities that apply to each of the 49 individual NRCs. The Model is superbly flexible in that it gives the analyst the ability to assign[6] as many as 202 different work activities to each of the 49 NRCs addressed by the Model. For each activity, the Model includes a subjective determination of the amount of labor, in minutes, that is required, on a forward-looking basis, to perform the activity.

As shown under "C" in Figure No. 2, after having defined NRCs in terms of individual work activities, the NRCM turns to the process of assigning incremental costs, principally labor costs, to each activity. Based on analyst inputs, the Model then calculates the costs for each activity associated with each NRC. The Model adds the individual activity costs to yield the total nonrecurring cost that pertains to each NRC.

Finally, the NRCM generates a series of reports that show the results of the analyses and details behind those results. See "D" in Figure No. 2.

---

6 In modeling parlance, the assignment of work activities to NRC types is referred-to as "mapping" (see Figure No. 2).

Q. PLEASE DESCRIBE AND EXPLAIN THE "ASSUMPTIONS" AND "INPUTS" TO WHICH REFERENCE IS MADE UNDER "C" AT FIGURE NO. 2.

A. The assumptions and inputs to which reference is made under "C" at Figure No. 2 enable the analyst to tailor operation of the NRCM to a specific ILEC (e.g., ACS, in this case). The Model allows the analyst to specify input values for ten (10) individual basic assumptions and categories of inputs:

<u>ILEC-specific labor rates –</u> the loaded labor rates that apply individually to each of fourteen (14) different ILEC workgroups that are involved in the processing of CLECs' orders;

<u>Copper Loop Percentage</u> – the percentage of total end-user loops served exclusively by copper cable as opposed to fiber cable plant in the ILEC serving area;

<u>Central Office Staffing</u> – the percentage of total loops in the ILEC serving area that are served out of central offices that have technicians on-site;

<u>Average Trip Time</u> – the average amount of time consumed by ILEC technicians to travel to the field to rearrange outside plant, or to non-staffed central offices to complete service orders, or to perform routine maintenance;

<u>Average Setup Time</u> – for orders on which travel to the field is necessary, the average amount of time required by a field technician to prepare the work area for the safe and efficient performance of the work.

Number of Work Activities per Order – the average number of work activities that will be performed on the occasion of each field visit;

Percentage of Dedicated Facilities – the percentage of loop facilities that are in-place and dedicated to individual customer locations;

Variable Overhead Percentage – the additional percentage by which nonrecurring costs per element are increased to account for variable overhead costs that are not reflected in the loaded labor rates;

Fallout Percentage, POTS Orders [7] -- the percentage of CLECs' total orders for POTS-related services that fail to negotiate the ILEC/CLEC automated interface and, therefore, require some degree of manual processing; and

Fallout Percentage, Complex Orders [8] -- the percentage of CLECs' total orders for complex services that fail to negotiate the ILEC/CLEC automated interface and, therefore, require some degree of manual processing.

---

[7] The term "POTS" is an acronym, accepted industry wide, for the phrase "Plain Old Telephone Service." POTS lines provide simple voice-grade service to end-users.

[8] "Complex" orders are orders for other than POTS services.

In addition to the ability to specify values for the Model's basic input variables, the analyst is able to modify the basic assumptions as to the labor time estimates associated with each of the 200+ activities that are mapped to the 49 individual NRCs.

Q. HOW DOES THE NRCM COMPUTE THE COST OF INDIVIDUAL ACTIVITIES ASSOCIATED WITH NONRECURRING CHARGES?

A. The basic form of the activity cost equation is shown below:

Cost = Activity Probability * Time Required * Hourly Labor Rate * (1/60).

To put the equation in perspective, consider the following hypothetical example of the cost for a cable technician to travel to a field location: time required for trip = 20 minutes (1/3 hour); probability that trip is required = 10 in 100; technician labor rate in dollars per hour = $100.00. Given this hypothetical, the cost of the field technician's trip would be defined by the NRCM as follows:

Cost = 0.10 * 20 minutes * $100.00 per hour * (1 hour per 60 minutes)

Cost =$3.33.

This cost is applied to all orders, including the 90 percent that do not require a trip to the field, thereby ensuring that all costs are equitably recovered.

Q. PLEASE BRIEFLY DESCRIBE THE DEVELOPMENT OF THE INDIVIDUAL ACTIVITY WORKTIME ESTIMATES THAT ARE INCLUDED IN THE MODEL.

A. As explained briefly above, subjective work time estimates are included in the Model for each of the nonrecurring activities that are involved in ILECs' efforts to make services and UNEs available to CLECs for their use. Each work time estimate represents the average of the amount of time necessary to perform a particular activity. The estimates were developed principally by a panel of subject matter experts, the members of which have broad and extensive experience with all areas of telecommunications operation and management; together, these experts have over 226 years of telecommunications engineering and operations experience with Regional Bell Operating Companies ("RBOCs"), Telcordia Technologies, Inc. (formerly, Bellcore), non-Bell operating companies and interexchange carriers. The work of the experts was guided by a separate group of regulatory economists and management consultants so as to ensure that the results produced by the NRCM conform properly to appropriate economic, regulatory and accounting principles.

Q. IS THERE ANY DOCUMENTATION AVAILABLE TO EXPLAIN THE NRCM IN DETAIL?

A. Yes. Exhibit THW-1 attached to this testimony is a complete and legible copy of the NRCM Technical Assumptions Binder ("NTAB") that was developed by MCI and AT&T for use in regulatory proceedings to explain the Model, its operation and the technical assumptions upon which the NRCM is based.

Q. HAVE YOU PREPARED AN ANALYSIS OF ACS' TRANSACTION NRCs USING THE NRCM?

A. Yes. I have developed nonrecurring charges that would allow ACS to recover the costs that it incurs or would incur to configure forty-three (43) separate basic and complex network elements for use by CLECs. The results of my analysis are shown in the table that appears as a single page at Exhibit THW-2. Details of the analysis are shown in Exhibit THW-3 – a single page table for each of the 43 NRCs that are addressed. Exhibit THW-9 is an "electronic" copy of the actual NRCM software that was used to produce the results that appear at Exhibit

THW-3. Exhibit THW-4, another single page table, shows the NRCM assumptions that were used in the analysis.

Q. PLEASE BRIEFLY EXPLAIN EACH OF THE PRIMARY INPUT VARIABLES THAT ARE REPORTED AT EXHIBIT THW-3.

A. Line No. 1 of the table shows that the model assumes that 65 percent of all loops in ACS' Anchorage serving area are composed of metallic wire pairs. The figure is developed from the loop model that is the subject of the testimonies presented by Mr. Fassett.

Line No. 2 shows that 85 percent of total lines in the Anchorage serving area are served out of staffed wire centers (i.e., wire centers that have ACS technicians in attendance during 8 hours or more each day).

Line No. 3 reports that the average time required for technicians to travel from their dispatch area to a field location is assumed to be 20 minutes. This figure is the result of my own research and confirming conversations with GCI personnel with field craft experience in Anchorage.

Lines Nos. 4-6 show the assumptions that I have made regarding the percentage of various types of CLEC orders that may fail to successfully transit the automated ordering interface between ACS and GCI. The model includes "default" percentages of 2% and 5%, respectively, for POTS and Complex order types. I have significantly increased those default percentages to 5% and 20%, respectively, in order to recognize that ACS has not yet deployed a fully-automated operations support system in Anchorage. These relaxed assumptions serve to increase nonrecurring costs.

Line No. 7 indicates that on field visits, technicians will perform an average of 4 work activities for each order on which they are dispatched. Activities may be combined for different CLECs and several activities may be performed by a single technician on one field trip for the same CLEC.

Line No. 8 indicates that the model is programmed to allow field technicians a total of 10 minutes on each field stop to set-up and tear down the work area. Examples of the activities at issue here include setting out safety cones and other barricades, etc.

Line No. 9 shows the percentage factor by which costs computed by the model are increased to recognize an allocation of overhead costs. I have set this variable to zero (0) in recognition of the fact that the labor rates used in the model are fully-loaded and therefore include all direct and indirect overhead costs incurred by ACS.

Line No. 10 shows a key assumption in the model – the degree to which the forward-looking network in Anchorage is designed for dedicated inside plant ("DIP") and dedicated outside plant ("DOP"). I am advised by Mr. Fassett that the network design about which they testify reflects fully-dedicated (100 percent) inside and outside plant facilities.

Line Nos. 11-25 report the loaded labor rates used in the model. These rates are derived from information provided by ACS to GCI in connection with earlier attempts at arbitration.

Q WHAT IS COLLOCATION?

A. The term "collocation" generally refers to the placement of a CLEC's equipment in an ILEC's premises for the purpose of facilitating CLECs' interconnection with and access to the ILEC's network.

Q. HAVE YOU DEVELOPED CHARGES THAT SHOULD APPLY TO GCI WHEN IT UNDERTAKES TO "COLLOCATE" ON AND OR AROUND ACS' PREMISES?

A. Yes. I have developed charges for a series of twelve (12) key collocation elements that are of mutual interest to ACS and GCI. The results of my analysis are shown at Exhibit THW-5. The information shown in the table of Exhibit THW-5, combined with the information shown under "SOURCES" shown at the bottom of the page should enable the reader to follow the development of each collocation element price that I recommend. My recommended element prices are shown in bold print in the shaded cells.

Q. IN WHAT WAYS DOES THE STRUCTURE FOR COLLOCATION RATES AND CHARGES THAT YOU PRESENT HERE DIFFER FROM THE STRUCTURE OF EXISTING COLLOCATION RATES AND CHARGES?

A. The rates and charges embodied in my proposal differ from the existing structure in that charges for new elements are proposed. In particular, my current proposal distinguishes floor space collocation rates and charges as between "improved" floor space and "unimproved" floor space. This is necessary because there is a significant difference between the the two types of floor space, as explained in the draft contract language described by Mr. Carroll on behalf of GCI. Also, under the current rates and charges structure, ACS charges GCI for unimproved land on which GCI would construct collocation facilities. Currently, the price of that unimproved land is the same as the price that ACS charges for improved building space. I propose that a new collocation element be established for GCI's use of ACS' unimproved land.

Q. HOW DID YOU DETERMINE THE PROPER CHARGES THAT SHOULD APPLY TO THESE PROPOSED LAND AND BUILDING PRICE STRUCTURES?

A. The FCC's rules for the design of rates and charges that would be used to encourage development of competitive local exchange markets require that the rates and charges be based on the economic concept of forward-looking costs – i.e., Total Service Long Run Incremental Cost ("TELRIC") – and not reflect ILEC embedded costs. Consistent with that requirement, I determined the forward-looking costs of ACS land and building assets that are used in providing interconnection and UNEs to GCI to be reflected in the current prices that are being paid for such assets in Anchorage. To that end, GCI engaged the services of a state-certified real estate appraiser to survey the Anchorage market with the objective to determine the prices currently being paid for leased commercial and industrial buildings, and the prices actually and recently paid for raw land in Anchorage. The surveys indicated that improved floor space in Anchorage is being leased at rates from $1.75 per sq. ft. to $3.25 per sq. ft.; unimproved floor space from $0.70 per sq. ft. to $2.25 per sq. ft. The prices for raw land sales in areas of Anchorage that are zoned for general commercial usage were shown by the survey to be $8.00 per sq. ft. My analysis of the current values for improved floor space, unimproved floor space, and raw land are based on the high-end of prices defined by the survey – monthly lease rates of $3.25 per sq. ft. for improved floor space and $2.25 for unimproved floor space; and a raw land sale price of $8.00 per sq. ft.

Q. EARLIER, YOU NOTED THAT YOU HAD DEVELOPED PRICES THAT SHOULD APPLY TO CERTAIN NETWORK ELEMENTS WITH RESPECT TO WHICH ACS AND GCI HAD REACHED AGREEMENT ON INCREMENTAL CAPITAL INVESTMENT. PLEASE EXPLAIN.

A. As the result of prior negotiations regarding matters at issue in this docket, ACS and GCI have reached agreement on the incremental capital investment amounts that should apply to certain network elements. As I observed earlier, these elements are: DS1 UNE, DS1 MUX, DS3 MUX, and DACS. Using the agree-upon incremental capital investment amounts, combined with annual charge factors provided to me by Dr. Mercer, I have developed proposed prices for each of those network elements at Exhibit THW-6.

Q. YOU ALSO NOTED EARLIER THAT AGREEMENT BETWEEN ACS AND GCI COULD NOT BE ACHIEVED WITH RESPECT TO CERTAIN OTHER NETWORK ELEMENTS. WHICH ELEMENTS ARE THEY?

A. The elements on which agreement could not be reached are DS3 UNE, and the miscellaneous outside plant ("OSP") elements Dark Fiber and Conduit. I have developed Exhibit THW-7 to show the price that should apply to the DS3 UNE element, and Exhibit THW-8 to show the development of the price that should apply to the miscellaneous OSP elements. Both exhibits are straight-forward in presenting the computations used in the analyses. However, Exhibit THW-6 does require some explanation.

Q. PLEASE EXPLAIN EXHIBIT THW-7.

A. The DS3 UNE can be provided using more than one design. For example, a single DS3 can be multiplexed and applied to fiber facilities at the basic bit rate of 45Mbps.[9] Another design may multiplex three DS3s on to an Optical Carrier 3 ("OC3") system. Other designs that rely on even higher bit rate systems are possible but in my experience, the design that employs the OC3 multiplex arrangement creates the most efficient and economical design for situations where from one to three DS3 signals are demanded. That is the design that I reflect at Exhibit THW-7.

Q. **DOES THAT CONCLUDE YOUR TESTIMONY AT THIS TIME?**

A. Yes, it does

---

[9] Mbps = Megabits per Second